CLAIM LISTING

Claim 1 (Currently Amended): A sintered scaffold material comprising bioactive glass fibers ~~glass or ceramic fibers~~ sintered together to form the scaffold material, wherein the scaffold material has a porosity of between about 50 volume % and about 90 volume %.

Claim 2: Cancelled

Claim 3 (Currently Amended): The scaffold of claim 1 [[or 2]], wherein the glass fibers are sintered together at a temperature from between about 300 °C to about 1500 °C.

Claim 4 (Currently Amended): The scaffold of claim 1 [[or 2]], wherein the glass fibers are sintered together at a temperature from between about 600 °C to about 700 °C.

Claim 5 (Currently Amended): The scaffold of claim 1 [[or 2]], wherein the glass fibers are sintered together at a temperature from between about 630 °C to about 680 °C.

Claim 6 (Previously Presented): A sintered glass scaffold comprising glass fibers sintered together to form the scaffold, wherein the fibers have a coating of one or more biocompatible polymers or copolymers.

Claim 7 (Original): The scaffold of claim 6, wherein the glass fibers comprise bioactive glass fibers.

Claim 8 (Original): The scaffold of claim 6 or 7, wherein the biocompatible polymer is selected from the group consisting of polyglycolide, polylactide, poly-β-hydroxybutyric acid, polydioxanone, polyvinylalcohol, polyesteramine, their copolymers and polymer blends thereof.

Claim 9 (Original): The scaffold of claim 6, wherein the coating has a thickness of about 1 μm to about 200 μm.

Claim 10 (Original): The scaffold of claim 6, wherein the coating has a thickness of from about 5 μm to about 30 μm.

Claim 11 (Currently Amended): The scaffold of claim 6, wherein the glass fibers coated with a polymer or copolymer are sintered at a temperature of between about 50 °C to about 300 °C.

Claim 12 (Currently Amended): The scaffold of claim 6 wherein the glass fibers coated with a polymer or copolymer are sintered at a temperature of between about 100 °C to about 200 °C.

Claim 13 (Previously Presented): A sintered scaffold material comprising glass or ceramic fibers, wherein the glass fibers comprise bioactive glass having a composition of about 53 to about 60 wt-% SiO_2, about 0 to about 34 wt-% Na_2O, about 1 to about 20 wt-% K_2O, about 0 to about 5 wt-% MgO, about 5 to about 25 wt-% CaO, about 0 to about 4 wt-% B_2O_3, about 0.5 to about 6 wt-% P_2O_5, wherein Na_2O in combination with K_2O is present in an amount between about 16 to about 35 wt-%; K_2O in combination with MgO is present in an amount between about 5 to about 20 wt-% and MgO in combination with CaO is present in an amount between about 10 to about 25 wt-%.

Claim 14 (Previously Presented): A sintered glass scaffold comprising glass fibers, wherein the glass fibers comprise bioactive glass having a composition of about 53 wt-% SiO_2, about 6 wt-% Na_2O, about 12 wt-% K_2O, about 5 wt-% MgO, about 20 wt-% CaO, about 0 wt-% B_2O_3 and about 4 wt-% P_2O_5.

Claim 15 (Original): The scaffold of claim 1 or 6, wherein the fibers prior to sintering have a length from about 2 mm to about 30 mm.

Claim 16 (Original): The scaffold of claim 1 or 6, wherein the fibers prior to sintering have a length from about 5 mm to about 15 mm.

Claim 17 (Original): The scaffold of claim 1 or 6, wherein the glass fibers are sintered for about 1 minute to about 120 minutes.

Claim 18 (Original): The scaffold of claim 1 or 6, wherein the glass fibers are sintered for about 5 to about 30 minutes.

Claim 19 (Original): The scaffold of claim 1 or 6, wherein the fibers prior to sintering have a diameter of about 0.010 - 1.0 mm.

Claim 20 (Original): The scaffold of claim 1 or 6, wherein the fibers prior to sintering have a diameter of about 0.030 - 0.300 mm.

Claim 21 (Previously Presented): The scaffold of claim 6, wherein the scaffold has a porosity of between about 5 volume % and about 95 volume %.

Claim 22 (Previously Presented): The scaffold of claim 6, wherein the scaffold has a porosity of between about 50 volume % and about 90 volume %.

Claim 23 (Original): The scaffold of claim 1, wherein the scaffold is a carrier for bioactive agents.

Claim 24 (Original): The scaffold of claim 6, wherein the scaffold is a carrier for bioactive agents.

Claim 25 (Previously Presented): A sintered scaffold material comprising glass or ceramic fibers, wherein the scaffold material has a porosity of between about 50 volume % and about 90 volume %, wherein the scaffold is a carrier for at least one bioactive agent, and wherein the bioactive agent is selected from the group consisting of anti-inflammatory agents, antibacterial agents, antiparasitic agents, antifungal agents, antiviral agents, anti-neoplastic agents, analgesic agents, anaesthetics, vaccines, central nervous system agents, growth factors, hormones, antihistamines, osteoinductive agents, cardiovascular agents, anti-ulcer agents, bronchodilators, vasodilators, birth control agents, fertility enhancing agents and polypeptides.

Claim 26 (Previously Presented): A sintered glass scaffold comprising glass fibers, wherein the glass fibers have a coating of one or more biocompatible polymers or copolymers, wherein the scaffold is a carrier for at least one bioactive agent, and wherein the bioactive agent is selected from the group consisting of anti-inflammatory agents, antibacterial agents, antiparasitic agents, antifungal agents, antiviral agents, anti-neoplastic agents, analgesic agents, anaesthetics, vaccines, central nervous system agents, growth factors, hormones, antihistamines, osteoinductive agents, cardiovascular agents, anti-ulcer agents, bronchodilators, vasodilators, birth control agents, fertility enhancing agents and polypeptides.

Claim 27 (Previously Presented): A sintered scaffold material comprising glass or ceramic fibers, wherein the scaffold material has a porosity of between about 50 volume % and about 90 volume %, wherein the scaffold is a carrier for at least one bioactive agent, and wherein the bioactive agent is bone morphogenetic protein.

Claim 28 (Previously Presented): A sintered glass scaffold comprising glass fibers, wherein the glass fibers have a coating of one or more biocompatible polymers or copolymers, wherein the scaffold is a carrier for at least one bioactive agent, and wherein the bioactive agent is bone morphogenetic protein.

Claim 29 (Original): The scaffold of claim 1 or 6, wherein the compressive strength of the scaffold is from about 5 to about 25 MPa.

Claim 30 (Original): The scaffold of claim 1 or 6 wherein the compressive strength of the scaffold is over 20 MPa.

Claim 31 (Original): The scaffold of claim 1, wherein the scaffold is attached to a biocompatible polymeric film.

Claim 32 (Original): The scaffold of claim 6, wherein the scaffold is attached to a biocompatible polymeric film.

Claim 33 (Original): The scaffold according to claim 31 or 32, wherein the biocompatible polymeric film comprises a polymer or polymers selected from the group consisting of polyglycolide, polylactide, poly-β-hydroxybutyric acid, polydioxanone, polyvinylalcohol, polyesteramine, their copolymers and polymer blends thereof.

Claim 34 (Previously Presented): The scaffold of claim 1 or 6, wherein the scaffold is capable of promoting bone regeneration.

Claim 35 (Original): The scaffold of claim 1 or 6, wherein the fibers are sintered together under compressive load.

Claim 36 (Original): The scaffold of claim 1 or 6, wherein the fibers are sintered together in a mold form.

Claim 37 (Original): The scaffold of claim 1 or 6, wherein the fibers form a mat which is attached to a membrane.

Claims 38-49: Cancelled